As of February 5, 2015

Q121:   Page 30 of the BAA states that full cost proposals must be submitted by all consultants (and not just subcontractors) on the team. Based on prior experience, this seems unusual. We have typically provided copies of consultant agreements (which state each consultant's rate), planned consultant funding, and when requested, breakdowns of planned consultant travel. Do you really want full cost proposals for each consultant on the team?

A121:   If the consultant agreement breaks out the costs as stated above, that is considered a full cost proposal for consultants. If needed, the contracting officer may request cost clarifications after proposal submission.

As of January 30, 2015

Q120:   Is the Procurement Contract a fixed price or cost reimbursable contract? Also, if allowed, is a 5% fee acceptable?

A120:   R&D contracts are typically cost-reimbursement due to the lack of precise specifications and difficulties in estimating costs with accuracy, but DARPA is not prohibited from awarding whatever contract vehicle it deems appropriate under the circumstances. Propose whatever contract mechanism is felt to be appropriate (along with a justification for that choice) and whatever fee you deem reasonable. Any proposed fee/contract type disagreements could be resolved during negotiations.

Q119:   What registration fees are required for the various meetings? Are registration fees per person or per company attending? Should they be included as ODC?

A119:   For budget purposes, use a $300 registration fee per person for a two day PI meeting, where PI meetings alternate bi-coastal locations. It would be an ODC. Amendment 2 to the BAA has been issued and posted to FBO which identifies a registration fee that applies to the Kick-off and subsequent PI meetings.

Q118: Is it required that submissions with multiple organizations be submitted only by one lead organization and must include the funding to the other organizations using subcontracts? Or is it possible for each organization to submit the proposal as a collaborative, that is, for each organization to register and submit the same technical proposal online but submit their own individual budget and then be funded individually by DARPA?

A118: The lead institution submits a single proposal with the prime/subcontractors budgets. As with all proposals, the subcontractors have the option of sending the Government their proprietary proposals separately if not included in the prime's proposal.

Q117: According to your talk, approximately $29M is expected to be allocated among 6-10 TA1 teams in three Phases over 4 years. Can we therefore roughly assume that average funding per team over 4 years is expected to be in the $3M - $5M range? What percentage of this amount is anticipated to support the activities in Phase 1? In other words do you have a target per project funding level in mind (which ultimately translates into an expected level of effort) for Phase 1 projects? Simple division would imply about $2M for a two year Phase 1 project.

And, should proposals focus exclusively on Phase 1 or should they address all three phases?

A117: It is suggested that you focus on how to address the goals of the BAA, and then figure out what that would cost. The numbers are provided as guidance, and no further comment will be made with respect to your first two questions. For your third question, this is your decision to make based on your proposed effort; however, there will be no further opportunity to submit future proposals to this BAA after the closing date (February 10).

Q116: Is it correct to assume that enforcement commands originate or are generated by TA2 alone, based on its detections?

A116: That is a reasonable assumption.

Q115: Is the TC program interested in techniques for the app-layer without requiring any OS modification?

A115: Within a platform, we desire proposals that address the entire stack, and prefer if they address across platforms.

Q114: Are standalone TA1 transition-able components at the end of Phase 1 of interest?

A114: That is a factor that will be viewed favorably, but is not a requirement or expectation.

Q113: How about self-protection?

A113: It is important that an adversary cannot hijack the TC mechanism. If compromise of an application can lead to such hijacking, performers are encouraged to consider how they can mitigate that risk. However, the core focus of the TC program does not include detection of memory integrity violation attacks.

Q112: How about throwing more CPUs at the problem?

A112: Using multicore is a valid approach.

Q111: What about memory overhead?

A111: The primary concern is application latency/slowdown. Memory (and other) overheads are important, but of secondary importance; however, this will depend on the platform.

Q110: Does TA3 worry about the composition of the TA1 and TA2 technologies?

A110: TA3 takes the lead to define the interfaces but all performers work collaboratively together.

Q109: Is it the responsibility of the TA3 performer to take the TA1 and TA2 technologies and integrate them for testing?

A109: TA2 and TA1 performers will work with the TA3 performer to produce a system that can be evaluated during the adversarial engagements.

Q108: If I am a TA1 performer covering a single platform, what am I expected to show at the adversarial engagements in each phase?

A108: During Phase I, performers are responsible for showing causality tracking within a single platform (of their choice). During Phase II, the goal is to export causality information to a device such as a firewall, and during Phase III the goal is to integrate the information across multiple platforms.

Q107: How do you measure TC?

A107: There are TC metrics that individual performers are responsible for as part of their research; metrics that will be measured as part of the adversarial engagements, and there are TC Program goals that are meant to be met by the end of the four years.

Q106:   With regards to implicit information flow, if a proposal does not have an answer for that, is it disqualified?

A106:   Not addressing implicit information flow does not necessarily mean immediate disqualification, but it does put the proposal at a disadvantage, in terms of selectability.

Q105:   Is work related to responses following detected attacks within scope? For example, is automatic program repair/reconstitution a valid response and something that a performer should investigate as part of a TA1 effort?

A105:   The focus of the TC Program is on understanding and not so much about what you do afterwards, i.e., not the response. The end of Phase II goal is only a driving force. We will be looking for a simple policy response in Phase II.

Q104:   I read your BAA on Transparent Computing and attended the industry day. I was wondering if you would be kind enough to clarify a few issues for me:

    — Will academic grants be available as a contract vehicle for academic institutions?

    — Will there be constraints on publication?

    — Will there be a requirement to make software public domain?

The first is of primary importance in providing a stable environment for Ph.D. students. The second would prevent the university from allowing me to accept a grant, even if I am supportive in this regard. The last would destroy my existing relationships with transition partners.

A104:   No, only contracts and other transactions will be available as an award vehicle under the Transparent Computing Program. Academic Institutions are capable of receiving contract awards. There will be no constraints on publication and it is desired for software to have at least Government Purpose Rights, preferably open source, but proprietary solutions are not discouraged.

Q103:   Is the TC Program interested in statistical behavior approaches?

A103:   As stated in the Transparent Computing (TC) Proposers' Day brief, the TC Program is not interested in statistical behavior approaches.

Q102:   Regarding DARPA BAA-15-15 (Transparent Computing), is there a list of attendees from Proposer's (Industry) Day the Agency has made available? We've reviewed the "Interested Vendors List" off of the FBO site, and are curious if there is another list of interested parties/possible partners available.

A102:   Those attendees at the Transparent Computing Proposer's Day who have agreed to make their contact information public are listed on a roster that can be found at the following link:

https://www.schafertmd.com/darpa/i2o/transparent_computing/2014/dec_pd/

Q101:   IAW normal proposal evaluation practices, should not the "Cost Summary" (Ref: p. 27, Section B.a.xi.) be excluded from the Volume 1 (Technical, Management) proposal? Even in single panel source selection evaluation teams, the technical proposal is first evaluated and scored, followed by the cost proposal separately evaluated and scored to avoid any possible biases (pro or con) toward costs.

A101:   Unlike a FAR 15 based source selection process, DARPA utilizes a FAR 35 scientific review process in which each individually proposed solution is evaluated based on the BAA's stated evaluation criteria to determine if it is selectable. During the evaluation and selection process, the costs are compared to the proposed statement of work to determine if the costs appear realistic in order to weigh the potential risks the work can be completed within available funding limits. There is no bias since proposed costs are not evaluated against other submitted proposals, but against their own individually proposed solution.

Q100:   The details of (benign) background traffic and activity can have a significant effect on both the ability of the TC system to learn, and on false alert rates. Which TA is responsible for defining and providing this data? When will a description be available? The actual traffic?

A100:   The TA5.1 performer will be responsible for constructing the testbed, including test traffic/activity. The details of the testbed will depend on the selection of performers and their respective technologies. Individual TA1/TA2/TA3 performers are responsible for conducting their own evaluations; sharing of traffic/data is encouraged.

Q99:   Which TA will be responsible for defining security policies? When will draft policy definitions be available?

A99:   TA2 performers will be responsible for defining security policies. Draft policy definitions will be proposed by the TA2 performers and draft policy definition availability stated within the proposed TC schedule to align with the formal evaluation events.

Q98: Which TA will provide and set up the infrastructure to be used for the evaluations [it would seem to be TA4, but this isn't explicit]?

A98: TA5.1 provides the test environment for the formal evaluations and TA4 provides the operational scenario. It is expected (but not required) that a cloud computing environment will be used for that purpose.

Q97: What is expected from TA3 at the 14 and 22 month evaluation exercises?

A97: At month 14, there will be a formal evaluation event where the basic TC technologies, TA1, TA2, and TA3, will be provided an operational scenario to assess individual, TC technology-specific metrics, as well as gauge the preliminary status of integration. At month 22 (the end of Phase I) there will be a formal evaluation event of the TC technology where the operational scenario will include an APT browser and multi-tier Apps environment to assess progress of the individual, technology-specific metrics. The TA3 architectural framework will be assessed for its ability to demonstrate a multi-tier data collection architecture with an analysis and enforcement engine capable of usage with the individual TC technologies chosen in Phase I.

Q96: Are the presentations from the TC Proposers' Day (15-Dec) available online (or otherwise)?

A96: The Transparent Computing (TC) Program Manger Presentation Video is presently available at the below TC link. The presentations from the TC Proposers' Day will also be made available at the following TC link:

http://cmsauth.darpa.mil/Our_Work/I2O/Programs/Transparent_Computing.aspx

Q95: For teaming purposes, does DARPA prohibit or discourage a subcontractor from being on multiple teams or multiple prime proposals?

A95: No.

Q94: Is a VM type of approach where you crypto sign a label for every item in the stack and organize the memory in the language as a data structure in scope?

A94: Yes, possibly.

Q93: Why did you provide the information flow example with the browser?

A93: It is meant as an example, as we are looking for agnostic techniques similar to the browser example, but not limited to these types of examples.

Q92:   Is there teaming? Can you submit a joint proposal?

A92:   The teaming website can be found at https://www.schafertmd.com/darpa/i2o/transparent_computing/2014/dec_pd/index.php?p=location. Please note that it is DARPA's desire to receive comprehensive, quality responses to the TC BAA. To assist those wanting to form strong, collaborative teaming efforts and business relationships, potential performers may indicate upon registering via the registration website that they authorize their contact information to be shared among meeting participants. Team formation, communications, and networking are the sole responsibility of the participants.

Q91:   Casual graphs have relations and conditions which need to be true (richness) and have ways to reason. The graph can be multilayered and one needs to reason about them. Would it be in scope to develop a reasoning method to capture richness?

A91:   The intent is for TA1 to collect causal relations. If you can create rich representations, then you can make the case for why it is necessary.

Q90:   If there are eight TA1 performers, then they are not all sending the same information to TA2. Therefore, how do you monitor the system?

A90:   TA1 performers select the platform and there are different platforms, with minimal redundant information. We prefer TA1 proposals with as much of the software stack addressed, as possible.

Q89:   Can we assume a policy or do we have to guess?

A89:   In some cases, you may have information. In other cases, you may not.

Q88:   Are rich graphs in-scope?

A88:   The purpose of TA2 is to deal with large amounts of data by TA1 in the form of a graph.

Q87:   Are on-line approaches to cyber security relevant?

A87:   If relevant to APT detection.

Q86:   Is research in established controlled methodologies (i.e., control theory) relevant to the vision?

A86:   With regards to policy and simple reactions to events from TA2, they are in scope.

Q85: How do we develop TA2 in isolation?

A85: TA2 performers may use home-brew or already existing technologies to generate provenance graphs that may not be truly causal, but will provide a starting point for the types of analyses and the data volume anticipated. DARPA may make available such tools at the beginning of the program.

Q84: Does TA2 direct TA1?

A84: The research done by TA2 will inform TA1 research directions, and vice versa. The program will be operated in a collaborative, interactive fashion.

Q83: Human involved or automated?

A83: Both in scope.

Q82: Statistical comment: What if not in Gaussian?

A82: Want TA1 to have a high granularity and no statistics.

Q81: Any applicability to Genie?

A81: Probable not.

Q80: Will you support teams of 5 or less?

A80: Propose appropriate team sizes to accomplish your statement of work.

Q79: Is it one proposal for all three phases?

A79: Yes, each proposal should address all three phases. Phase 2 and 3 should be proposed as options.

Q78: Does TA1 instrument, page fault the tags, and do tracking for TA2?

A78: TA1 performers will propose approaches for tracking and reporting tag propagation. This information will be used by TA2.

Q77: Do you need a team in the proposal?

A77: A team is not required to propose; however, a team may be needed to propose a complete solution. It is completely up to the proposer to provide a solution.

Q76: Can analysis be used in TA2? There is massive data. Can you aggregate the components in a rack?

A76: If you believe TA2 goals can be met in this manner, then propose.

Q75: A cyber physical system (smart grid) has meters, telecom, etc. Is this a general purpose application?

A75: TA1 technologies are not tied to application domain or program (APTs). TA2 analysis is specific to APT detection. TA2 proposers work with TA1 performers, thus, cannot assume components. TA1 performers can choose any platform. Choose one or more than one, as it is completely up to the proposer.

Q74: TA1 and TA2 do not interface?

A74: TA1 and TA2 collaborate with TA3 taking the lead.

Q73: I see the components of TC in my company's portfolio. Is portfolio out of scope of TC?

A73: Look at the BAA and IP. The program will emphasize creating and leveraging open source technology and architecture. Intellectual property rights asserted by proposers are strongly encouraged to be aligned with open source regimes.

A key goal of the program is to establish an open, standards-based, multi-source, plug-and-play architecture that allows for interoperability and integration. This includes the ability to easily add, remove, substitute, and modify software and hardware components. This will facilitate rapid innovation by providing a base for future users or developers of program technologies and deliverables. Therefore, it is desired that all noncommercial software (including source code), software documentation, hardware designs and documentation, and technical data generated by the program, be provided as deliverables to the Government with a minimum of Government Purpose Rights (GPR), as lesser rights may adversely impact the lifecycle costs of affected items, components, or processes.

Q72: APTs: How will we know what such an attack looks like? If you want ground truth, how is knowledge shared?

A72: This information will be available through the TA4 Scenarios and the TA5.1 Adversarial Team.

Q71: Do you see TA1 and TA2 working together with regards to detection of events?

A71: It is unclear what is meant by events. TA1, TA2 and TA3 technologies together are responsible for establishing causality across the software stack and across the enterprise.

Q70: Is avionics in scope?

A70: Yes, it is an acceptable platform.

Q69: New languages are out of scope. Are existing languages with some modifications in scope?

A69: Yes, as long as they do not require significant manual effort to retrofit existing programs.

Q68: For TA1, is the output a causality graph?

A68: Yes.

Q67: Can you have multiple teams from one organization?

A67: Yes.

Q66: Do we need to do APT detection for causality analysis?

A66: Refer to the browser example as a case where there is no clear indication.

Q65: How about TCB?

A65: You can make assumptions. You can use existing hardware for the platform you use.

Q64: Only the system can be instrumented?

A64: Yes.

Q63: Do you have a preference for large teams?

A63: Preference is for a given platform to cover as much as possible, all the software stack levels.

Q62: Should TA1 be a sensor?

A62: It is unclear what is meant by the term sensor.

Q61: Can you speak to what is in-scope for roots of trust?

A61: Leverage existing facilities in the platform you choose and cover highest level in the stack from the lowest level.

Q60: Do solutions have to be justified and explained in the context of an APT scenario?

A60: You can speak to it, but it is not necessary.

Q59: Causality is a process of tagging data. Is it out of scope to tag everything and have 100% confidence?

A59: We strongly prefer fine-grained high resolution causality tracking.

Q58: Are there parts of scenarios which you may hold back on revealing with other developers?

A58: Possibly.

Q57: The BAA says generic scenarios to bring the TA performer teams together. Are you also looking at scenarios that will support the TA's development?

A57: Interested in a wide range of scenarios in each phase.

Q56: Do you have a vision for collaboration with TA4 and TA5.1?

A56: I anticipate extensive collaboration.

Q55: Who is your transition partner?

A55: There are several potential transition partners, however, it is premature to state.

Q54: In the preface of your program, you mention forensic analysis, and in the latter, you mention real-time, which do you like better?

A54: I like all of it. The challenge is in real-time. One can focus on one or the other or both.

Q53: 2X performance overhead, what is this benchmark?

A53: 2X is what we would like at program end.

Q52: How much are you looking for between layers?

A52: Prefer solutions that cover the whole software stack for a given platform.

Q51: Are real-time graph analytics of interest?

A51: They are of interest with regards to the usage of graphs for causality. Analysis of graphs is an important part of TA2.

Q50: Any research papers referenced in the BAA?

A50: No.

Q49: Can you propose an X86 host based environment and no mobile platform?

A49: Only need to address one platform.

Q48: Are VMs out of scope for host based systems?

A48: If you feel your idea addresses fine-grained causality.

Q47: Will you allow for an oral presentation?

A47: No.

Q46: Do you expect a proposer to address the entire stack?

A46: A proposal may address the entire stack within a platform or a single layer of the stack. In the latter case, DARPA prefers that the work is applicable across multiple platforms. Single-layer single-platform approaches will still be considered.

Q45: Can you propose two proposals, one in TA1 and one in TA2?

A45: Yes.

Q44: Is interplay between performers desirable?

A44: Yes, that is why the TC Program requires an Associate Contractor Agreement.

Q43: Do you have any suggestions on whether to team with a large or small company?

A43: That is your preference.

Q42: I want to team, but do not know how to partner?

A42: The TC Program has a teaming portal.

Q41: Are there Intellectual Property Rights on TC?

A41: The Government desires unlimited rights.

Q40: Where is the link to the teaming forum?

A40: The link is:
https://www.schafertmd.com/darpa/i2o/transparent_computing/Teaming/people.php

Q39: Where is the link to the Transparent Computing video?

A39: The link is:

https://www.schafertmd.com/darpa/i2o/transparent_computing/2014/dec_pd/index.php?p=background

Q38: Do we assume that some attack/breach of information is given as a starting point?

A38: No.

Q37: What's the starting point of causality analysis?

A37: It depends on the technical approach and the scenario. In the one extreme, it is always happening.

Q36: In slide 4, he mentions that routers are out of scope. But, he did not elaborate. Can he please do so? Is network-level causality out of scope?

A36: Yes.

Q35: As presented in the BAA, TA1 produces causal information (graphs) and TA2 consumes these graphs. Are solutions in scope that postulate information flowing back and forth between TA1 and TA2 at various layers of the software stack?

A35: Yes.

Q34: Do you have an estimate of the level of funding that will be allocated to TA3? Estimates were provided for TA1 and TA2 in your brief today at the Proposer's day.

A34: No.

Q33: The presentation showed that the end of the base phase target is 15M SLOC apps such as a browser, multiple applications, but on single host. Does it mean the goal is to use the technology to make multiple selected applications (covering all software layers of course) running on the host transparent (as opposed to all that runs on that host)? If so, how many?

A33: The goal is to be able to handle all apps running on a desktop, including some that are 15M SLOC, by the end of base phase.

Q32: The examples shown, observed the flow in the *internal* environment of the app by transformation or analysis. Are approaches which observe and reason about the flow by observing the app's *external* interface (e.g., its system calls) also within scope and preferred?

A32: These are coarser grained approaches and viewed as potentially inferior unless complemented by other technologies.

Q31: Please confirm that static analysis can assume that any program being analyzed has not already been compromised.

A31: Yes, we are primarily concerned with benign applications. The purpose of the static analysis in the TC Program is not to identify vulnerabilities but to aid in determination of causality.

Q30: Can a TA1 proposer make specific assumptions about the nature of TA2 analysis, and hence, enable a synergistic approach?

A30: No.

Q29: You said that changes at the router level are not in scope; however, in the APT scenario the router is compromised. Can you clarify what is in scope here?

A29: The router is not in-scope. A compromise may originate there, as part of a scenario.

Q28: For TA1, can you confirm that solutions at both binary and source code levels are in scope?

A28: Yes.

Q27: Can we assume that openflow is part of the infrastructure?

A27: If necessary for your approach, yes.

Q26: What architecture capabilities (e.g. openness, configurability, scalability, semantic interoperability, etc.) do you believe are most important to help the researchers within the community realize the goals of the Transparent Computing Program?

A26: They are all important. We cannot provide a prioritization.

Q25: Is the DARPA Transparent Computing Program interested in industrial automation, medical systems, power systems, smart-cities, etc.?

A25: Yes.

Q24: TA2: What kinds of graphs are acceptable? For example, petri-net, stochastic models, etc.?

A24: Any.

Q23: TA1: Can the application be a mission critical cyber-physical system such as smart grid?

A23: The platform can be a mission critical system such as the one referenced in the question.

Q22: Do you anticipate down-select between phases? If so, how will you reconcile compete-time nature of down-select with cooperation envisioned in the BAA?

A22: There is no formal down selection criteria. Continued participation in the program is subject to satisfactory performance.

Q21: Is propagation of tags in a network, in a distributed system, in scope for TA1?

A21: We are interested in establishing causality across an enterprise. If tags are part of the technical approach, then propagation across the enterprise for the purpose of establishing causality is within scope.

Q20: Can TA1 also construct graphs for tagging?

A20: TA1 addresses tagging and TA2 addresses the reasoning with graphs.

Q19: Why does TA2 not have accuracy of detection and speed as metrics?

A19: Accuracy of detection and speed are metrics across all three TAs - TA1, TA2, and TA3.

Q18: Can source code be modified? Do you have a metric for how much it can be modified?

A18: Source translation is allowed as long as it is accomplished through automated means.

Q17: If you choose to find a technology that is not ready for insertion into the prototype, will this technology receive individual scenario support?

A17: Yes, the scenario will be provided to all performers.

Q16: How will TA 5.2 interact with or support the other TAs outside of evaluation periods?

A16: This is addressed in the BAA. TA5.2 will provide in-depth analysis of the results of each evaluation.

Q15: What is meant by "indirect information flow" (BAA: TA1, topic #4, slide 11)?

A15: This is a term of art referring to influence control flow decisions by tagged data without involving direct copying of said data.

Q14: TA1, topic #6, which talks about self-protection by leveraging lower layers of the TC technology: In the slides, this seems to be part of TA3. Can you clarify where it belongs?

A14: It is the responsibility of TA1 and TA3.

Q13: Is the TA3 team expected to be the leader amongst the peers – manage PI meetings, ICD, etc.?

A13: We expect TA3 to define the overall architecture.

Q12: Do you have a transition partner in mind?

A12: Yes.

Q11: Can multiple proposals be submitted for the same TA, from the same organization? Example: Submit two proposals for TA1 with very different approaches.

A11: Yes.

Q10: Is TA3 responsible for aligning TA1 outputs (tags) so TA2 isn't working against 5-10 different output types?

A10: All performers are expected to coordinate on the interfaces with TA3 taking the lead.

Q9: Is the government willing to enter into a contract with a firm-fixed price base period and cost-type options to allow time for DCAA to approve the contractor's accounting system?

A9: DARPA is willing to consider various award instrument types within reason. Proposals should indicate on each volume cover page the preferred award instrument and any rationale behind the recommendation. The Contracting Officer shall have sole discretion to select award instrument type and to negotiate all instrument terms and conditions with selectees. If the parties cannot negotiate an agreeable award instrument and/or terms of the agreement within a reasonable time or the proposer fails to provide requested additional information in a timely manner, the proposer will be removed from award consideration.

Q8: Is the focus on TA2 primarily on algorithms to process large-scale graphs after compression?

A8: The focus of TA2 is to reason about global behaviors that are tracked by TA1 mechanisms. The form such reasoning might take is entirely up to the proposers. Processing large-scale graphs is one possible approach.

Q7: Can there be any enforcement in a TA1 proposal?

A7: Yes, although enforcement is not a priority for TA1, the ability to do enforcement is a desirable property of a TA1 mechanism.

Q6: Can TA1 projects assume part of the input to the trace collection is a policy?

A6: Yes, collection may be driven by policy. In that case, it should be possible to have a "collect everything" policy.

Q5: Given that I already have funding (for a postdoc and PhD students over 3 years) on a related topic, would it make sense to write a proposal for funding that would supplement the existing project and facilitate broader activity integrating planned research into the TC activity? Or would any new proposal have to be completely independent of already-funded projects?

A5: In order to be evaluated for an award against the TC BAA, you must submit a responsive proposal before the closing time and date. What to propose is completely up to the

individual proposer, as it is up to you to decide what is relevant to the needs of the TC program, as described in the BAA.

Q4:   Would it be possible for me to find out the contact information of any participants in the meeting on Monday that have agreed to share their contact information? (I'd be happy to list my contact details as well.) This would make it easier to identify potential partners.

A4:   The attendee's roster will be posted on the following Transparent Computing website: https://www.schafertmd.com/darpa/i2o/transparent_computing/2014/dec_pd/

Q3:   According to the BAA sec. III.A.2, non-US entities may participate. Does this mean I could in principle submit a proposal as a PI that funds work carried out only in the UK (as with my current AFOSR grant)? Or can non-US entities only be subcontractors or team members on proposals that are led by US institutions?

A3:   A non-US entity can submit a proposal as either a prime or sub (It is clearly up to the submitter), and work can be performed outside of the US.

Q2:   Is teaming encouraged?

A2:   Overall, the determination for teaming and the specific arrangements are up to individual proposers. Specifically for TA1, the need for providing coverage across the software stack argues for integrated approaches that incorporate tagging-and-tracking mechanisms that span multiple layers (e.g., from native machine code to embedded language runtimes). While DARPA will consider innovative solutions that operate within a single software layer, we encourage approaches that take a broader view.

Q1:   In the Proposers Day briefing, multiple platforms of interest were mentioned. Do TA1 proposals have to cover all of these?

A1:   No, TA1 proposers may pick one or more platforms from those listed and focus their attention there. For proposers that focus on a single software layer (e.g., an embedded language runtime), DARPA encourages proposals that cover more than one platform (e.g., desktop and mobile).